

SECRET

Monthly Report

25X1

PAR 249

30 Jun 69

SUBJECT: Precision Enlarger Prototype (BPE) Operational Improvements and Maintenance

25X1

TASK/PROBLEM

1. Provide photographic enlarger maintenance at the customer's facility for one Precision Enlarger (BPE) and three* 10-20-40X Enlargers.

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DISCUSSION

2. Contractor personnel visited the customer's facility during the week beginning 9 June 1969 to perform the required monthly preventive maintenance (PM) on the BPE, and two-month PM on the four* 10-20-40X Enlargers. The attached check lists show the work performed.

3. During the check on the BPE, it was observed that the actuator on the left limit switch for the vertical transport drive was broken. As a replacement for this type of item was not readily available in the area, a new one will be delivered and installed on the next trip.

4. A film transport problem was encountered on the S/N 113 10-20-40X Enlarger. As this problem was caused by a defective Thyatron Tube, the tube was replaced using customer spares. Replacement of the tube eliminated the transport problem. Check of the other 10-20-40X Enlargers indicated satisfactory operation.

* Although the Task/Problem specifies preventive maintenance on three 10-20-40X Enlargers, the contractor regularly services four enlargers on the basis of verbal request. The customer has stated that he does not consider it necessary to revise the wording of PAR 249 at this time.

Declass Review by NGA

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PAR 249

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PLANNED ACTIVITY

5. This visit completed effort under PAR 249. When contractor personnel visit the customer's facility during the week beginning 14 July 1969 to perform monthly PM on the BPE, effort will be under PAR 249A.

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SECRETPAR 249
30 Jun 69**PREVENTIVE MAINTENANCE SCHEDULE CHECK LIST**

| BEACON PRECISION ENLARGER

Assigned to: Date 9 June 69 Machine Serial No. 001

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✓	Item	Description
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Daily Interval

✓	1	Check the four indicator lamps on the sub-control panel.
✓	2.1	Check closed-negative-gate interlock.
✓	2.2	Check interlock that causes vertical transport slow speed.
✓	2.3	Check interlock that disables negative transport after fluid injection.
✓	2.4	Check operation of microswitch that functions when manual-film-movement knob is pushed in.
✓	3.1	Check the indicator lamps for the two attenuator banks of the easel photometer.
	3.2	Check the meter scale illuminator lamp of the easel photometer.
	3.3	Check the antifatigue lamp in photo-multiplier tube housing.
	4	Clean the glass plates of the negative gate.

One-Week Interval

	1	Vacuum-clean the enlarger.
	2	Check, and if necessary, clean the objective lenses and all glass filters.
	3	Vacuum-clean the front surface of the easel.
✓	4	Check the fiber optics for broken fibers.

✓	Item	Description
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One-Month Interval

✓	1	Wax the steel rails of the lens ramp and of the easel.
✓	2	Install new air filter in lamphouse.
✓	3	Clean the nylon brushes of the fluid removal system.
✓	4	Check all tubing and hoses for cracks and air leakage.
✓	5	Check and, if necessary, clean the lenses of the condenser lens assemblies.

Six-Month Interval

	1.1	Make a photographic check on all six matching sets of objective and condenser lens assemblies.
	1.2	Be sure that film is tracking properly in both directions on the negative transport system.
	2	Check the timing belts of the film transport system, of the vertical drive system, and of the easel drive assembly for wear.

Checked by Date 9 June 69 25X1

Changed 2/68

REMARKS:

The actuator on the left limit switch for the vertical transport was broken; a new one will be replaced on the next trip.

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30 Jun 69**PREVENTIVE MAINTENANCE SCHEDULE CHECK LIST**
TWO-MONTH INTERVAL

PRECISION ENLARGER, 10-20-40X

Assigned To:

25X1

Date: 10 Jun 69

Machine Serial No. 101

✓	Item	Description	✓	Item	Description
	1	Film Transport		8	Vacuum Pump Assembly
✓	1.1	Static Removal Unit	NA	8.1	Hoses and Couplings
✓	1.2	Guide Roller Flanges	NA	8.2	Pump
✓	1.3	Air Knives	NA	8.3	Oil Level
✓	1.4	Belts and Pulleys		9	Lamp House Assembly
✓	1.5	Lubricate Bearings	✓	9.1	Housing
	2	Easel and Stencil Assembly	✓	9.2	Filter (Photographic)
✓	2.1	Easel	✓	9.3	Light Leaks
NA	2.2	Air Pressure System	✓	9.4	Lamp House Blower
	3	Illuminator		10	Immersion System
✓	3.1	Glass	✓	10.1	Ejectors
✓	3.2	Lamps	✓	10.2	Hoses and Couplings
✓	4	Negative Gate Interlock	✓	10.3	Blower
✓	5	Lenses	✓	10.4	Fluid Level
✓	6	Stripper Plate	✓	11	Lamp House Control
	7	Air Pressure System	✓	12	Analyzer
✓	7.1	Air Lines		13	Photo Check
NA	7.2	Compressor Control		13.1	Resolution
NA	7.3	Relief Valve		13.2	Uniformity
✓	7.4	Regulator		14	General Inspection
NA	7.5	Filter-Compressor			
NA	7.6	Drain Storage Tank			

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30 Jun 69**PREVENTIVE MAINTENANCE SCHEDULE CHECK LIST**
TWO-MONTH INTERVAL

PRECISION ENLARGER, 10-20-40X

Assigned To:

25X1

Date: 10 Jun 69

Machine Serial No. 113

✓	Item	Description	✓	Item	Description
	1	Film Transport		8	Vacuum Pump Assembly
✓	1.1	Static Removal Unit	NA	8.1	Hoses and Couplings
✓	1.2	Guide Roller Flanges	NA	8.2	Pump
✓	1.3	Air Knives	NA	8.3	Oil Level
✓	1.4	Belts and Pulleys		9	Lamp House Assembly
✓	1.5	Lubricate Bearings	✓	9.1	Housing
	2	Easel and Stencil Assembly	✓	9.2	Filter (Photographic)
✓	2.1	Easel	✓	9.3	Light Leaks
NA	2.2	Air Pressure System	✓	9.4	Lamp House Blower
	3	Illuminator		10	Immersion System
✓	3.1	Glass	✓	10.1	Ejectors
✓	3.2	Lamps	✓	10.2	Hoses and Couplings
✓	4	Negative Gate Interlock	✓	10.3	Blower
✓	5	Lenses	✓	10.4	Fluid Level
✓	6	Stripper Plate	✓	11	Lamp House Control
	7	Air Pressure System	✓	12	Analyzer
✓	7.1	Air Lines		13	Photo Check
NA	7.2	Compressor Control		13.1	Resolution
NA	7.3	Relief Valve		13.2	Uniformity
✓	7.4	Regulator		14	General Inspection
NA	7.5	Filter-Compressor			
NA	7.6	Drain Storage Tank			

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REMARKS:

Defective Thyatron tube. After tube was replaced,
film transport operated satisfactorily.

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TWO-MONTH INTERVAL

PRECISION ENLARGER, 10-20-40X

Assigned To: 25X1

Date: 10 Jun 69

Machine Serial No. 119

✓	Item	Description	✓	Item	Description
	1	Film Transport		8	Vacuum Pump Assembly
✓	1.1	Static Removal Unit	NA	8.1	Hoses and Couplings
✓	1.2	Guide Roller Flanges	NA	8.2	Pump
✓	1.3	Air Knives	NA	8.3	Oil Level
✓	1.4	Belts and Pulleys		9	Lamp House Assembly
✓	1.5	Lubricate Bearings	✓	9.1	Housing
	2	Easel and Stencil Assembly	✓	9.2	Filter (Photographic)
✓	2.1	Easel	✓	9.3	Light Leaks
NA	2.2	Air Pressure System	✓	9.4	Lamp House Blower
	3	Illuminator		10	Immersion System
✓	3.1	Glass	✓	10.1	Ejectors
✓	3.2	Lamps	✓	10.2	Hoses and Couplings
✓	4	Negative Gate Interlock	✓	10.3	Blower
✓	5	Lenses	✓	10.4	Fluid Level
✓	6	Stripper Plate	✓	11	Lamp House Control
	7	Air Pressure System	✓	12	Analyzer
✓	7.1	Air Lines		13	Photo Check
NA	7.2	Compressor Control		13.1	Resolution
NA	7.3	Relief Valve		13.2	Uniformity
✓	7.4	Regulator		14	General Inspection
NA	7.5	Filter-Compressor			
NA	7.6	Drain Storage Tank			

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30 Jun 69**PREVENTIVE MAINTENANCE SCHEDULE CHECK LIST**
TWO-MONTH INTERVAL

PRECISION ENLARGER, 10-20-40X

Assigned To:

25X1

Date: 10 Jun 69

Machine Serial No. 123

✓	Item	Description	✓	Item	Description
	1	Film Transport		8	Vacuum Pump Assembly
✓	1.1	Static Removal Unit	NA	8.1	Hoses and Couplings
✓	1.2	Guide Roller Flanges	NA	8.2	Pump
✓	1.3	Air Knives	NA	8.3	Oil Level
✓	1.4	Belts and Pulleys		9	Lamp House Assembly
✓	1.5	Lubricate Bearings	✓	9.1	Housing
	2	Easel and Stencil Assembly	✓	9.2	Filter (Photographic)
✓	2.1	Easel	✓	9.3	Light Leaks
NA	2.2	Air Pressure System	✓	9.4	Lamp House Blower
	3	Illuminator		10	Immersion System
✓	3.1	Glass	✓	10.1	Ejectors
✓	3.2	Lamps	✓	10.2	Hoses and Couplings
✓	4	Negative Gate Interlock	✓	10.3	Blower
✓	5	Lenses	✓	10.4	Fluid Level
✓	6	Stripper Plate	✓	11	Lamp House Control
	7	Air Pressure System	✓	12	Analyzer
✓	7.1	Air Lines		13	Photo Check
NA	7.2	Compressor Control		13.1	Resolution
NA	7.3	Relief Valve		13.2	Uniformity
✓	7.4	Regulator		14	General Inspection
NA	7.5	Filter-Compressor			
NA	7.6	Drain Storage Tank			

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